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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,099	01/20/2004	Timothy J. O'Leary	AFTP 03-16 01	4916

217370 7590 10/01/2008

OFFICE OF THE STAFF JUDGE ADVOCATE  
U.S. ARMY MEDICAL RESEARCH AND MATERIEL COMMAND  
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EXAMINER

CALAMITA, HEATHER

ART UNIT

PAPER NUMBER

1637

MAIL DATE

DELIVERY MODE

10/01/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Advisory Action**  
**Before the Filing of an Appeal Brief**

**Application No.**

10/759,099

**Applicant(s)**

O'LEARY ET AL.

**Examiner**

HEATHER G. CALAMITA

**Art Unit**

1637

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 03 September 2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.  
Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: 32, 34 and 39.  
Claim(s) rejected: 16-24, 26-31, 33, 35, 37, 38 and 41-46.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

/GARY BENZION/  
Supervisory Patent Examiner, Art Unit 1637

/Heather G. Calamita, Ph.D./  
Examiner, Art Unit 1637

Continuation of 11, does NOT place the application in condition for allowance because: Applicants arguments with respect to the declaration filed on February 12, 2008, are not persuasive. Applicants argue the amendment to claim 16 makes the claim commensurate in scope with the declaration. This argument is not persuasive because as detailed in the Office Action mailed June 18, 2008, the declaration is insufficient to overcome the rejections. With the amendment to claim 16, the declaration remains insufficient to overcome the rejections of record. Applicants' declaration argues methods of making the liposomes as well as a lower limit of detection. Applicants argue the method used by Singh et al. to produce the liposomes is not compatible with DNA encapsulation and that it allows only for passive encapsulation of DNA segments into the liposomes. These arguments are still not commensurate in scope with the claims because the instant claims do not recite any limitations with respect to lipid mixtures. Applicants argue the claims now recite a specific number of nucleic acid segments within the liposome. While the amended claims do recite a specific number of nucleic acid segments within the liposome, the declaration remains unpersuasive. The declaration on p. 4 addresses the number of nucleic acid segments in the liposomes. However, this is a hypothetical calculation. No data is presented as to the actual number of segments incorporated into the liposome. Additionally, a skilled artisan would recognize that more segments could be encapsulated into the liposomes by increasing the concentration of nucleic acid segments in the solution in which the liposomes are formed. Finally, Applicants argue the methods of Singh et al. and Wu et al. respectively, are not as sensitive with respect to detection capabilities. Again these arguments are not commensurate in scope with the instant claims because there are no limitations requiring a specific level of detection. With respect to claim 43, Applicants argue there is not express teaching of wherein the aggregation causes the liposomal bilayers to become unstable leading to the spontaneous rupture of the liposomal bilayer. This argument is not persuasive because this is an inherent feature of all liposomes when receptors in the plane of the bilayer aggregate which occurs when the receptors are exposed to a target analyte. With respect to the remaining 103 rejections, Applicants argue the amendment of 50 to 1,000 overcomes the rejections, based on the content of the declaration. These arguments are not persuasive for the reasons stated above. With respect to claims 29-30, Applicants argue Boxer does not teach or suggest reducing nonspecific binding of the bilayers on an immobilizing substrate by attaching PEG to the bilayer. This argument is not persuasive because Boxer is not relied for the teaching of immobilization, Wu et al. is relied on for this teaching. Additionally, Boxer does teach using PEG in the surface of the liposomal bilayer and while Boxer is silent with respect to the non-specific binding properties of PEG in a bilayer this is necessarily a feature of Boxer's PEG in a bilayer. With respect to claim 31, Applicants argue there is no teaching to use DNase to degrade background DNA in an assay while leaving identical reporter segments intact within liposomes. This argument is not persuasive because this kind of teaching is not required. Huang et al. teaches using DNase to remove contaminating DNA. This is the only requirement in claim 31. Huang teaches this limitation and motivation is provided as to why a skilled artisan would use DNase. With respect to claims 44-45, these arguments were addressed above in the declaration and with respect to claim 45 in arguments regarding claim 43. With respect to the antedating of the references the rejections relying on those references have been withdrawn, however the claims are objected to as being dependent on a rejected base claim.